



Department of Energy

Fermi Area Office
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Batavia, Illinois 60510

RECEIVED

APR 30 2004

Environment,
Safety & Health Section

APR 28 2004

Mr. Gerald Brown, Associate
Director for Operations Support
Fermilab
P.O. Box 500
Batavia, IL 60510

Dear Mr. Brown:

SUBJECT: NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DETERMINATION AT
FERMI NATIONAL ACCELERATOR LABORATORY (FERMILAB) - "DOMESTIC
WATER SUPPLY UPGRADE"

Reference: Letter, G. Brown to J. Monhart, dated April 19, 2004, Subject: Same As Above

I have reviewed the Fermilab Environmental Evaluation Notification Form (EENF) for the subject proposed project transmitted by your referenced letter. Based on the information provided in the EENF, I have approved the following project as a categorical exclusion (CX):

<u>Project Name</u>	<u>Approved</u>	<u>CX (s)</u>
Domestic Water Supply Upgrade	4/28/2004	B1.15

I am returning a signed copy of the EENF for your records. No further NEPA review is required. This project falls under a categorical exclusion(s) provided in 10 CFR 1021, as amended in 1996.

Sincerely,

Jane L. Monhart
Area Manager

Enclosure:
As Stated

M. Witherell, w/o encl.
K. Stanfield, w/o encl.
B. Chrisman, w/o encl.
C. Trimby, w/o encl.
J. Sims, w/encl.
B. Griffing, w/encl.
T. Dykhuis, w/o encl.

FERMILAB ENVIRONMENTAL EVALUATION NOTIFICATION FORM

Project/Activity Title: Domestic Water Supply Upgrade
ES&H Tracking Number: 01042 **Funding Source:** GPP
Fermilab Project Manager: Jeffrey Sims (X6113)

Signature _____

Date _____

Fermilab NEPA Reviewer: Teri Dykhuis

Signature _____

Date _____

I. Description of the Proposed Action

There is a basic necessity at Fermilab to maintain an adequate, reliable, and economical supply of domestic water. Currently, domestic water at Fermilab is drawn from two relatively shallow wells, treated and distributed to users. These two wells are nearly 30 years old and have experienced a marked reduction in capacity over the last 10 years due to age and changed hydro-geologic conditions. In addition, ground motion studies within the 8 GeV line (from Booster to Main Injector) over the last 2 years has shown that flows greater than 100 gallons per minute from Well #1 adversely impact beam quality. For this reason, last year, Well #1 was operated at very low flow to avoid degrading beamline quality. Reduced capacity of the main site wells and beamline operational concerns have resulted in the need for Fermilab to upgrade the main site campus domestic water supply.

Several alternatives were studied including drilling an additional well, rehabilitating an out-of-commission well (Well #4), and two types of elevated water storage. Viewed over a 25-year life cycle, it was concluded that the best solution for water supply involved connecting the main site campus distribution system to the village distribution system; the Village of Warrenville supplies village domestic water. The "no-action" alternative would not address the stated need.

With this upgrade the Fermilab main site domestic water system would be supplied by Warrenville water via two 6-inch diameter water mains to be constructed from the main site system to the west side of the village. Water main construction would involve direct burying approximately 11,000 lineal feet of 6-inch diameter High Density Poly Ethylene (HDPE) pipe 5 foot below grade. Locator wire would be direct buried with the nonmetallic pipe to aid in future location. Additional work would involve installation of isolation valves, flushing

hydrants, flow meters, and disconnecting wells #1 and #3 from the main site system.

II. Description of the Affected Environment

Excavation necessary to install the pipe would result in approximately 10 acres of temporary disturbance. It is estimated that 6700 cubic yards of excavation will be necessary.

III. Potential Environmental Effects (Provide comments for each checked item and where clarification is necessary.)

A. Sensitive Resources: Will the proposed action result in changes and/or disturbances to any of the following resources?

- ☐ Threatened or endangered species
- ☐ Other protected species
- ☐ Wetland/Floodplains
- ☐ Archaeological or historical resources
- ☐ Non-attainment areas

B. Regulated Substances/Activities: Will the proposed action involve any of the following regulated substances or activities?

- ☒ Clearing or Excavation
- ☐ Demolition or decommissioning
- ☐ Asbestos removal
- ☐ PCBs
- ☐ Chemical use or storage
- ☐ Pesticides
- ☐ Air emissions
- ☐ Liquid effluents
- ☐ Underground storage tanks
- ☐ Hazardous or other regulated waste (including radioactive or mixed)
- ☐ Radioactive exposures or radioactive air emissions
- ☐ Radioactivation of soil or groundwater

C. Other relevant Disclosures

- ☐ Threatened violation of ES&H permit requirements
- ☐ Siting/construction/major modification of waste recovery or TSD facilities
- ☐ Disturbance of pre-existing contamination
- ☒ New or modified permits
- ☐ Public controversy
- ☐ Action/involvement of another federal agency
- ☒ Public utilities/services
- ☐ Depletion of a non-renewable resource

IV. NEPA Recommendation

Fermilab has reviewed this proposed action and conclude that the appropriate level of NEPA determination is a Categorical Exclusion. The conclusion is based on the proposed action meeting the applicable requirements in DOE's NEPA Implementation Procedures, 10 CFR 1021, Subpart D, Appendix B1.15.

V. DOE/CH-FAO NEPA Coordinator Review

Concurrence with the recommendation for determination:

NEPA Coordinator reviewer Jonathan Cooper

Signature

Jonathan P. Cooper

Date

4/28/04

Fermi Area Manager

Jane L. Monhart

Signature

Jane L. Monhart

Date

4/28/04

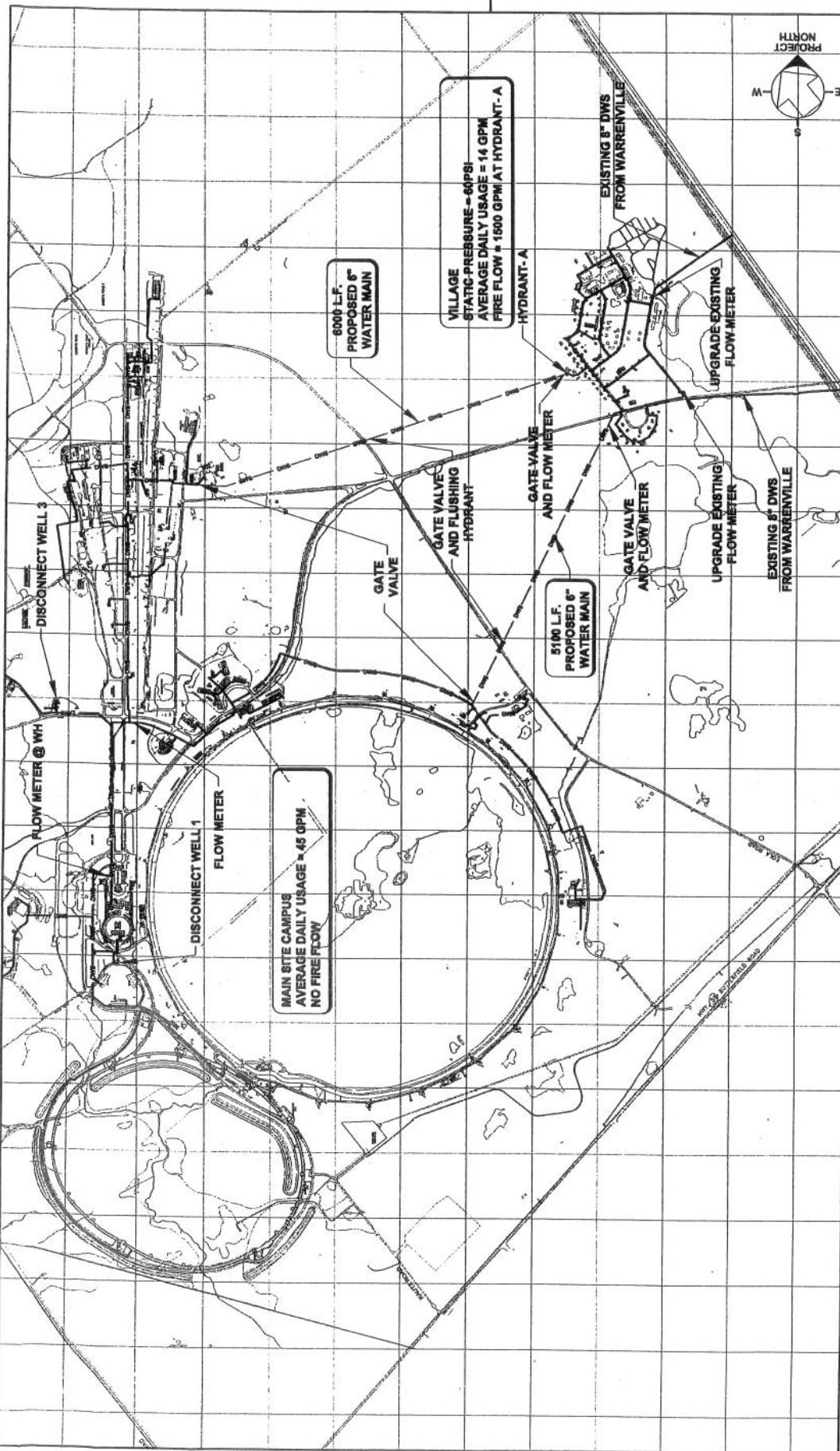
VI. Comments on checked items in section III.

EXCAVATION -- The 6700 cubic yards of excavated soil would be used for backfill and grading after the installation of the water mains was complete.

PERMITS -- The magnitude of the project would necessitate that we obtain a stormwater permit from the Illinois DNR. In conjunction with that permit, we would prepare a storm water pollution prevention plan.

In addition, the appropriate notification would be made to the Illinois Department of Public Health upon a decision to decommission any of the existing wells.

PUBLIC UTILITIES/SERVICES --Fermilab is cooperating with the City of Warrenville to obtain necessary construction permits from the Illinois Department of Public Health and Illinois EPA for disconnecting of Fermilab wells and connecting to Warrenville. Relevant documentation of these discussions is contained in the Conceptual Design Review for this project (FESS/Engineering Project No 3-5-134).



FERMI NATIONAL ACCELERATOR LABORATORY

DWS SUPPLY UPGRADE

SITE PLAN

DRAWING NO. **3-5-134**

[illegible]